1: Turnbull E-4. 5 (1951-1955) 1965 FO4 Pygmies FO4
Mbuti

ENVIRONMENT

[P.164-9]

136 Both Schebesta and Putnam agree on the
•137 profound importance of the environment,
182 which is the same throughout the Ituri, in determining to a great extent the life and thought of these forest people. In the primary rain forest there is little seasonal change. Different species of fruits, edible fungus, nuts, roots, and vegetables may flourish more abundantly at one time than another, but there is ample food of this kind at all times. The game is not migratory, except within very small areas, and
182 is always plentiful. The combination of warmth and humidity that produces this lush environment, with its plentiful supply of food for the Mbuti hunters and gatherers, also adds directly to their material comfort. In the absence of climatic extremes the Pygmy is little troubled by problems of clothing or shelter. All his basic needs are attended to for him by his environment, a fact that, writes Schebesta (1952, 42) does not favor "cultural evolution," but the hallmark of hunting and gathering communities is in any case one of "*la primitivité conservatrice*."

1: Turnbull E-4. 5 (1951-1955) 1965 EO4 Pygmies FO4
Mbuti

[P. 164-C]

that the caterpillar turns into a butterfly." 000

The forest throughout is interlaced with rivers and streams, and the terrain is gently undulating. These rivers, and the larger of the streams, seem to form effective natural boundaries and may well influence migratory tendencies, as the Pygmy both dislikes large expanses of water and lacks the knowledge of how to bridge them. Reports of journalists and others of Pygmy bridge-building activities (Cotlow, 1956) probably result from recent attempts, by both villagers and European movie makers, to teach the Pygmies how to build swing bridges. Putnam (1948, 325) asserts that the Pygmy probably never has to go more than 100 yards to find water. Temperatures throughout the year vary only between a low of 70° F. at night and a possible high of 80° F. during the day. The forest varies with respect to underbrush but on the whole is unimpeded virgin growth, with a carpet of leaf mold between the trees. Where villagers have made a clearing, however, there is thickly tangled undergrowth.

133 182 [166] [823] [484] [491] [179] 132 137

[P. 165-A] There is a profusion of wild flowers and orchids and many different kinds of vine. The Mbuti make great use of various species of *Ficus* for the manufacture of barkcloth, and certain vines are used to make string and hunting nets. There are also trees that give a sap which, if taken from one part of the tree, can be used as a cooking oil and, if taken from another, can be used either as an adhesive or as fuel for a torchlight. The Mbuti have a knowledge of effective medicines prepared from plants and roots, and also of poisons.

Schebesta (1952, 95–147), in response to persons who hold that the Mbuti have no culture of their own (e.g., Kerken, 1944), points to their remarkable adaptation to the forest environment. The level of their culture may not be high, but, even though primitive and "conservative," it is distinctly a forest culture and distinctly Pygmy. Their needs are few, and raw material is abundant. The striking thing is the minimal extent to which they utilize this material. Both Schebesta (1952, 98) and Putnam attribute this to the super-sufficiency of the environment itself which, making minimal demands, is accorded a minimal response. Mate-

1: Turnbull E-4, 5 (1951-1955) 1965 FO4 Pygmies FO4
Mbuti

[NET HUNTERS]

222 Putnam says that, for most of the year, gather-
221 ing can be said only to supplement vegetable
439 food obtained from the villager plantations, al-
though during the "dry season" (January–Feb-
ruary) certain seeds and fruits ripen, and forest
foods become so plentiful that the Pygmy can
live entirely by gathering.

222 Particularly important among the fruits is
[137] the *ibambi*, a large fruit somewhat resembling
an outsized pineapple. When ripe it can be
heard falling to the ground, at which there is a

[P 209-8]

1: Turnbull E-4. 5 (1951-1955) 1965 FO4 Pygmies FO4
Mbuti

race between Pygmies and chimpanzees to get 222
to it first. Pygmies say that chimpanzees, if they [225]
are already well fed, will take a fallen *ibambi*
and hide it in the fork of a tree, but an obser-
vant Pygmy will find it. The *eseli* nut is the [137]
most important of the nuts and is too tough for
chimpanzees to open, and the *itaba* is the most
important of the edible roots. Following the dry [221]
season comes the season of termites, and then
that of caterpillars. The honey season, however,
is the only season of real significance.

[P. 209-C]

361
342
37

/Plate 29-A/

/Caption appears on p.290/

[NET HUNTERS]

224
484
137

/Plate 34-A/

/Caption appears on p. 300/

2: Turnbull E-5 (1951-1958) 1965 FO4 Pygmies FO4
Mbuti

[P.ii]

133
137

[Frontispiece]

2: Turnbull E-5 (1951-1958) 1965 FO4 Pygmies FO4
Mbuti

pure hunting and gathering economy at work not only side by side with, but in opposition to, a cultivation economy. With the pygmoid Twa and Tswa, and possibly only excepting a few small groups in the Gabon and among the Ubangi Binga pygmies, the rest of the population of pygmy hunters and gatherers has become largely dependent for food upon cultivation, either by adopting it themselves or by entering into symbiosis with neighboring village farmers. The Mbuti solution to the contact situation is very different, and so it is in its contemporary context that we study it; any light the study may throw on an earlier form of pygmy society is incidental.

The habitat of the Mbuti is the Ituri Forest. This is a primary rain forest that runs across the equator from the fringes of the Saharan desert, in the north, into the Kivu mountains, in the south. To the east it is bounded clearly by a succession of lakes (Lake Albert, Lake Edward and Lake Kivu) but to the west the boundary is less definable, the forest thinning out as it approaches the Congo River's commercial centers. Effectively, the Mbuti occupy only the dense forest where the migration of game and the nature of vegetation have alike been virtually unaffected by outside influences. Their forest home, some 50,000 square miles in extent, is traversed by a number of roads built, for the most part, since the 1930's, but the purpose of the roads has been merely for transport and has not led to any significant exploitation of the forest, which in most places comes right to the very edge of the roadway (see Map 4).[1]

There are a number of significant features concerning the forest that have to be taken into account. In general it is considered as generous and friendly from the point of view of the Mbuti hunters and gatherers, and as niggardly and hostile from the point of view of the villager cultivators.

For example, the forest is, in most places, gently undulating, though even the mountainous sections in the east and in the south are as thickly wooded at their highest points as at the lowest. In all the territory to the north of the Kivu mountains the average height above sea level is somewhere around a thousand meters. This height, together with the over-all denseness of the forest, and an almost daily rainfall that averages from 70 to 80 inches per year, makes the temperatures within the forest remain remarkably constant and agreeable, seldom departing far from either side of 80° F., never below 70° or above 90°. The relative humidity is fairly constant at 95 per cent.

[1] [see page 319 -- Analyst]

2: Turnbull E-5 (1951-1958) 1965 FO4 Pygmies FO4
Mbuti

Where in the villages, and in the plantations that surround them, the midday temperatures soar well into the nineties, and the ground is covered with a dry, choking dust that quickly turns to mud, in the shade of the forest the world is cool and fresh, with only rare places, such as along river banks or at salt licks, where sunlight reaches the ground without first being filtered through a leafy roof. Also from the point of view of comfort, and of health, where village conditions lead to gatherings of flies and mosquitoes, these disease bearers are seldom if ever seen in the depths of the forest, except at such sites as are easily avoided. The Mbuti frequently compare their lot, in these respects, with that of the villagers, who in turn grudgingly admit to some advantages of forest life.

Another important contrast between forest and village life is in the water supply. The forest is interlaced with innumerable streams, any of which can be drunk from with impunity. A hunting camp is always located near a stream, but never stays in the one vicinity long enough to foul the water. A village remains in the same location, however, for three years or so, and the local water supply invariably becomes polluted. The villagers have some resistance to infection, but the Mbuti often have none and quickly become sick if they stay too long in a village.

But it is with regard to food even more than shelter or water that the forest seems to favor the Mbuti. Throughout the year, without fail, there is an abundant supply of game and of vegetable foods. There are half a dozen different kinds of antelope that are particularly abundant, apart from supplementary sources of meat such as birds, monkeys, chimpanzees, and divers grubs and insects. The forest also supplies a number of edible roots, notably the sweet *itaba*, and many different varieties of mushrooms, nuts, berries and fruits. All the latter may vary in abundance the one from the other, according to the time of year, but throughout the year at any one time there will be an ample supply, in both quantity and variety.

The only truly seasonal food in the forest economy of the Mbuti is honey, and it is of major importance in the diet. It is also of major importance as a focal point in the constant process of fission and fusion that characterizes Mbuti society.

The apparent benevolence of the forest towards the Mbuti extends still further. The materials for the making of shelter, clothing, and all other necessary items of material culture are all to hand at a moment's notice. Firewood, equally, is everywhere in abundance. It is

2: Turnbull E-5 (1951-1958) 1965 FO4 Pygmies FO4
Mbuti

clearly defined, opening northward into a large central area unclaimed by anyone.

The topography of the Epulu territory is similar to that of most other bands, though without the steep, mountainous ridges that occur slightly further east. The ground is gently undulating, as thickly forested on the hilltops as in the valleys, though the vegetation is much denser along the banks of streams and rivers. It is almost impossible to walk more than a few hundred yards without having to cross a small stream, and after a particularly violent and prolonged rainfall there are areas that become temporarily flooded and the larger streams may become uncrossable torrents. But normally there is little difficulty in traveling from one extreme of the area to another. There are no swamps, the ground is clear of the tangled undergrowth that characterizes old plantation sites, and all but the largest streams are either shallow enough, in places, to be forded or are bridged at intervals by fallen trees. Nowhere do the Mbuti need to build bridges, and nowhere do they do so except in the village context.[2] It is a simple fact that rivers that are too wide to be bridged by a fallen tree are relatively far and few between, and therefore form convenient natural boundaries. There is neither the desire nor the need to cross such rivers. A certain mistrust of large bodies of water strengthens the efficacy of rivers as boundaries, just as the few superstitions to be found among the Mbuti mostly relate to ravines, caves, streams or hills that form other boundaries.

The abundance of game and vegetable food may be taken for

[2] The famous "pygmy" bridge and the spectacular technique of crossing a river by swinging on a vine from one side to the other were taught to the Mbuti, not without difficulty, by an enterprising movie-maker. Patrick Putnam was asked to assist as interpreter, but refused. His first wife, however, went to watch the proceedings. The same group of pygmies retained some knowledge of the technique, and obligingly repeated the act for subsequent "documentary" film units. They are the only group with the knowledge, though they are now less proficient. A more recent movie-maker had to sling a wire hawser across the river and suspend the vine swing from its midpoint. A simple mathematical calculation will reveal the impossibility of the swinging technique, even disregarding the area behind the swing that would have to be cleared, a task in itself beyond Mbuti technology. Assuming the fulcrum is over one bank, and the branches into which the pygmy is to swing are directly over the far bank (a generous assumption), and assuming that the pygmy can be drawn back far enough to swing up to a 45-degree angle at the far end of his swing, the maximum width that can be crossed is three-quarters of the height of the swing. In practical experiment among the Mbuti, I found that effectively half the height of the swing was the maximum horizontal distance that could be so traversed. This would mean that to cross a river a mere hundred yards in width, the fulcrum would have to be some 600 feet up, demanding a tree approaching the height of the Eiffel Tower. Conversely, a swing of the maximum normally practicable length of 60 feet would enable a pygmy to span a stream a mere 30 feet across. Pygmies generally have rather more sense, in such matters, than movie-makers.

The abundance of game and vegetable food may be taken for granted in any part of the forest, except possibly that small triangle bounded by the three roads joining the administrative centers of Mambasa, Irumu and Beni (Map 4), where the roads and the heavy concentration of foreign settlements, coffee plantations, hospitals, missions and mines have considerably affected the natural resources and the natural patterns of game migration. There is no economic need for trespass. Each territory is large enough for a band to roam within it for year after year, never twice occupying the same camp site, never exhausting its supplies of food or the materials needed for shelter and clothing and the rest of the minimal Mbuti material culture.

All of which is not to say that boundaries are not crossed. They are crossed, either when hunters commit trespass or when individuals or families visit relatives in other bands. In the case of trespass, a band of hunters may pursue game across a boundary stream, particularly if it is one of the more prized animals. An elephant would almost certainly be pursued, but it is understood that the band whose territory is so violated has certain rights to the spoils. Such trespass is considered excusable under these conditions. Generally, however, a band will never hunt near its boundaries if the neighboring band is in the vicinity of the same boundary.

The only cases of uncondoned trespass known to me are rare instances when a band has found itself short of honey during the brief honey season, and has invaded its neighbor's territory and actually set up temporary camp there. This was considered inexcusable only because permission was not first sought.

If trespass is rare, boundaries are being crossed frequently for the approved purpose of visiting relatives, consanguineal or affinal. Individuals or whole families sometimes wander in this way until they are several territories distant from their home territory. By "home territory" an Mbuti would mean the territory in which he most habitually hunted, and in which he has established certain claims to honey or bark trees. He would be unlikely to attempt to define it in terms of clan or lineage concepts; that is, he would refer to the territory rather than to the band. This habitual exchange of visits is, in fact, the major social communication that exists between one band and another, but it also has a secondary economic significance: a band that becomes too large for convenience may split, a part of it going to join another band that has perhaps fallen below the optimum economic size. The major purpose of interband visits is the extension

[1][see page 319 -- Analyst]

2: Turnbull E-5 (1951-1958) 1965 FO4 Pygmies FO4
Mbuti
Congo-Kinshasa FO1

[P.108-A]

PC
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342
137

1. The village of Epulu, shady but constantly threatened by the encroachments of the forest.

2: Turnbull E-5 (1951-1958) 1965 FO4 Pygmies FO4
Mbuti
Congo-Kinshasa FO1

[P. 108-C]

P
C
342
137

3. An abandoned village, overgrown in a few months.

2: Turnbull E-5 (1951-1958) 1965 FO4 Pygmies FO4
Mbuti
Congo-Kinshasa FO1

[P.108-D]

PC
137
252
291
551
412
142
415

4. Mbuti girl helps village woman pound manioc in shade of plantain tree.

342
361
137
[P.108-6]

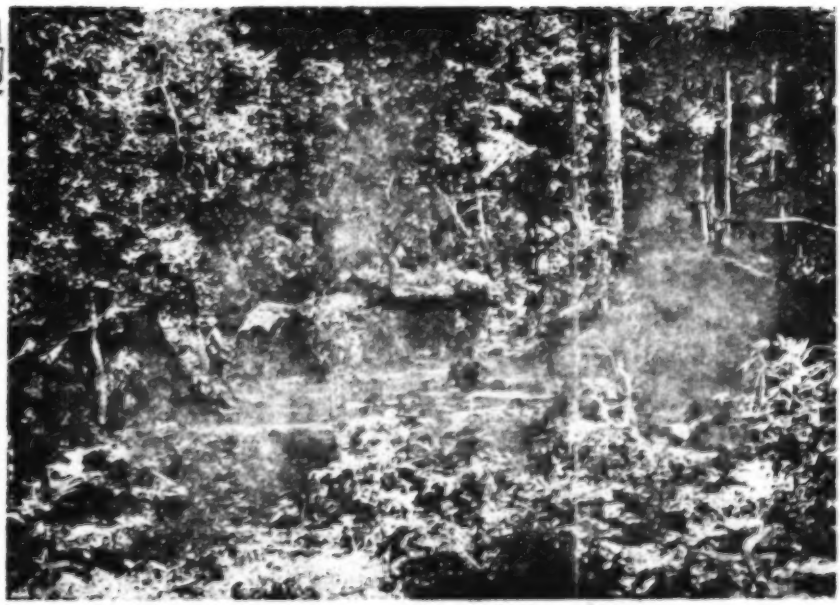
2: Turnbull E-5 (1951-1958) 1965 FO4 Pygmies FO4
Mbuti

8. This village camp of the Mbuti at Epulu was built in imitation of the main village. It soon became fouled and was abandoned, succeeding village camps being built in the forest at the edge of the plantations.

2: Turnbull E-5 (1951-1958) 1965 FO4 Pygmies FO4
Mbuti

[R. 156-A]

361
137
342



17. A forest camp (a corner of apa Lelo) is far removed from the dust and dirt and heat of the village. When the Mbuti tire of the village, they can escape to the forest and build a camp such as this in a matter of a few hours.

[166]

2: Turnbull E-5 (1951-1958) 1965 FO4 Pygmies FO4
Mbuti

[P.156-B]

361
342
137

595

18. Apa Kadiketu, showing Ekianga's village-style hut, where he lived with his controversial youngest wife.[1]

[1][see pages 102-103 -- Analyst]

2: Turnbull E-5 (1951-1958) 1965 FO4 Pygmies FO4
Mbuti

[P.276-D]

224
137

30. The hunt sets off, well camouflaged against the leafy background. The men and youths

[P.276-F]

224
411
137

[184]

32. Masisi stops on his way to the hunt to try for a monkey in the treetops. For net-hunters the bow and arrow is only an incidental means of food-getting. As seen here, poisoned arrows are preferred to those with metal tips provided by the villagers.

224
41
[882]

33. Two youths, armed with spears, carry their fathers' hunting nets. They will not have nets of their own until they are married but may, on occasion, take the place of their fathers on the hunt.

[P.276-L]

• 137

41. A spot like this, in the Lelo River, was the resting place of the *molimo* trumpets used in honor of Balekimito. Vines are stretched across the stream to warn intruders to keep away. The precaution, however, is as much for fear of theft as for fear of desecration.

DGS
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534

3: Turnbull E-5 (1951-1958) 1962 FO4 Pygmies FO4
Mbuti

Anyone who has stood in the silent emptiness of a tropical rain forest must know how Stanley and his followers felt, coming as they all did from an open country of rolling plains, of sunlight and warmth. Many people who have visited the Ituri since, and many who have lived there, feel just the same, overpowered by the heaviness of everything—the damp air, the gigantic water-laden trees that are constantly dripping, never quite drying out between the violent storms that come with monotonous regularity, the very earth itself heavy and cloying after the slightest shower. And, above all, such people feel overpowered by the seeming silence and the age-old remoteness and loneliness of it all.

But these are the feelings of outsiders, of those who do not belong to the forest. If you *are* of the forest it is a very different place. What seems to other people to be eternal and depressing gloom becomes a cool, restful, shady world with light filtering lazily through the tree tops that meet high overhead and shut out the direct sunlight—the sunlight that dries up the non-forest world of the outsiders and makes it hot and dusty and dirty.

Even the silence is a myth. If you have ears for them, the forest is full of sounds—exciting, mysterious, mournful, joyful. The shrill trumpeting of an elephant, the sickening cough of a leopard (or the hundred and one sounds that can be mistaken for it), always makes your heart beat a little unevenly, telling you that you are just the slightest bit scared, or even more. At night, in the honey season, you hear a weird, long-drawn-out, soulful cry high up in the trees. It seems to go on and on, and you wonder what kind of creature can cry for so long without taking breath. The people of the forest say it is the chameleon, telling them that there is honey nearby. Scientists will tell you that chameleons are unable to make any such sound. But the forest people of faraway Ceylon also know the song of the chameleon. Then in the early morning comes the pathetic cry of the pigeon, a plaintive cooing that slides from one note down to the next until it dies away in a soft, sad, little moan.

THE MAKING OF CAMP LELO

a tangle of fallen trees and ever-spreading vines and creepers. Here and there where the *fito*—the sapling used by villagers for building their houses—had once grown, the tangle was even worse. Once the forest is cut it grows up again, not as the mighty primeval forest it was, but as a jungle of secondary vegetation that in places is almost impenetrable. We went in single file, for the most part following a path; when we left it the youths in front flashed their hatchets above their heads, slashing away overhanging branches and vines without even slowing up, to make it easier for us to follow. But where they cut they left sharp jagged ends sticking out at just about eye-level for me. When newly cut these dangerous points are plainly visible and easy to avoid, but when they become old and dirty they are a real menace.

After about half an hour we reached the place where the more ambitious Pygmies had tried to make a plantation; this was the farthest point from the new village of Epulu that the Negroes had reached when searching for the wood to build their houses. Beyond this they did not care to venture, except for an occasional one such as Kaweki, who made his living by trapping fish in the forest streams, and those who came to help him or to carry his fish to the market. Beyond this point, in Negro eyes, the forest was evil—full of animals, malevolent spirits, and Pygmies.

But for the people of the forest the world began at this point. There was a stream nearby, just beyond the "plantation," near a site where I had recorded the forest songs of these same Pygmies * three years earlier. In this stream, for no obvious reason, each of the five youths washed carefully, as though literally ridding their very feet of the dust of the village. Then they splashed through the cool, clear water and set off again with even greater vigor than before,

* Folkways Records: FE 4457, Pygmies of the Ituri Forest
FE 4483, Music of the Ituri Forest

3: Turnbull E-5 (1951-1958) 1962 FO4 Pygmies FO4
Mbuti

singing snatches of songs and shouting back and forth to one another about all the animals they were going to kill and eat.

Occasionally we heard an echo of our own voices coming back from the depths of the forest. Then we stopped, and one by one the young men shouted bold phrases to imaginary maidens, holding their noses and mouths, ready to stifle the shriek of laughter that would come when the same rude challenge was shouted back at them. They clapped one another on the back and held onto one another for support as they laughed, inventing all sorts of things they would do and say to any girl who answered them in such a way. The Pygmy is not in the least self-conscious about showing his emotions; he likes to laugh until tears come to his eyes and he is too weak to stand. He then sits down or lies on the ground and laughs still louder.

As we went on the forest became more spacious, and it seemed lighter, although the trees still met high overhead and shut out all direct sunlight. There was no need to worry about overhanging branches now, for here the forest was virgin, untouched by the sacrilegious hand of the village cultivator, and clear of heavy undergrowth. The ground was soft underfoot, carpeted with leaves that sometimes concealed a projecting root. But the pygmies knew where every obstacle was, even though they could not see it, and they picked up their feet to avoid tripping.

On all sides we could see for twenty or thirty yards. The giant trunks of the old trees were surrounded by slender, branchless saplings, all so far apart that we could wander off the path freely at almost any point. Here and there the main path was crossed by a smaller path made by some animal, and Kenge frequently turned off and followed the animal trail, beckoning me to follow. A few minutes later he would stop and sit down on his bundle, and then when the rest appeared along the main path he would jump to his feet and make fun of them for "walking like the BaNgwana." The

3: Turnbull E-5 (1951-1958) 1962 FO4 Pygmies FO4
Mbuti

361 beautiful parts of the whole forest for me. This is partly because of
114 what happened there, but also because it is one of the places where the forest is at its gentlest and kindest. Even when we left, after a month of heavy rains had turned the campsite into a morass of mud, it was still beautiful, and much as the Pygmies hate a muddy camp they were reluctant to leave. Now, however, all was still green and fresh.

• 137 Elsewhere the forest can be severe, particularly in the mountain-
132 ous regions; and in many places it is overwhelming in its immensity. The leafy roof where the trees join together can be so far above that you feel as small and insignificant as the other animals roaming the ground below, depending on the forest for life. And at times it can be so powerful that it is frightening. When it whips itself into a fury, conjuring up rain and thunder and lightning, it turns small streams into raging torrents and sends heavy branches or even whole trees crashing down, some of them with trunks as thick as houses, destroying the living trees that stand in their way.

361 But even in a storm Apa Lelo was gentle and kind and protective.
137 Here, somehow, one felt superior to the other animals of the forest. At the far end of the camp, just beyond the hillock where Kenge had said our house was to be built, a path led off to the left through a glade where the smell of leaf mold was rich and cool and moist.
[136] Termites built their nests there, elfin huts of clay with funny mushroom-shaped roofs; small animals scampered about below and birds fluttered lazily overhead. The world at Apa Lelo was full of delicate colors and shades and whispering sounds, and up in the highest branches orchids shyly hid their delicate heads among the moss.

133 This glade was almost an island, as the Lelo swept around it, all
[361] but encircling the camp. The Lelo, the river the Pygmies loved above all others, widened out at the end of its curve into a broad shallow stream, a hundred feet or so across, clear and rippling. When the water was low a bank of shingle rose in the center. In the middle

THE MAKING OF CAMP LELO

In the middle
of the day the sun found its way through the leaves and struck this bank, and the women liked to wade out to it and do their washing there. When the river was as low as this you could wade all the way across, if you knew where to step, but at other times a huge fallen tree was used as a bridge.

On the far side the ground rose sharply, and though at first the forest was still open and friendly, as soon as you reached the top of the rise it became thick and closed in around you, and the only paths were those made by animals, narrow and twisting.

Kenge showed me all this with his chest puffed up with pride. He told me I could drink water from any of the streams or from the Lelo itself; it was not like living in the village where both the food and water were dirty. He showed where the women would bathe, and warned me to keep upstream of the shingle bar, so as not to offend them. The other youths had already stripped naked and were splashing in the water, unashamed, though in deference to an overclad Westerner they held their hands in front of them when they turned to face me.

We went back to the campsite and Kenge started clearing the ground. Very shortly afterward three of the great hunters arrived—Njobo, the killer of elephants; Masisi, the proud father; and Manyalibo, the gruff, good-humored conservative. They shouted a greeting as they came into the clearing, and looking around they threw down their hunting nets where they thought they would like to have their houses built. Njobo chose to be just to the south of the hillock; Manyalibo and Masisi, good cousins that they were, put their nets down beside each other, opposite. Then almost immediately they disappeared into the forest, each in a different direction, each with bow and arrows. In less than fifteen minutes Kenge, who had been examining the tracks of a huge buffalo that had passed by the night before, suddenly stood still and motioned me to be quiet. With his hands he mimed an antelope running and pointed into the forest behind Manyalibo's chosen site.

3: Turnbull E-5 (1951-1958) 1962 FO4 Pygmies FO4
Mbuti

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484

A group of men sets off for the hunt, some carrying their hunting

[P.72-F1]

3: Turnbull E-5 (1951-1958) 1962 FO4 Pygmies FO4
Mbuti

224
137
484

nets, others spears or bows and arrows.

[P. 72-F 2]

3: Turnbull E-5 (1951-1958) 1962 FO4 Pygmies FO4 •
Mbuti
Congo-Kinshasa FO1

PC
137
252
142
291
571
412
415

A Pygmy woman (right) helps a villager pound locally-grown rice.

[P. 72 K]

3: Turnbull E-5 (1951-1958) 1962 FO4 Pygmies FO4
Mbuti

765 534 322 [224] they went on to tell me how the trumpets are normally made, from the young straight molimo tree, a tree with a soft center that can be bored out laboriously, using different vines and woods as drills, twisting them between the palms of the hands. It took a very long time, they said, but this was the real molimo, and its voice was the best of all. Njobo used to have such a trumpet, but it had rotted away, and now all he had was a short bamboo one.

765 534 422 Kenge told me that the trumpet which Masimongo owned had originally belonged to Kenge's father, Adenota, and by rights belonged to him. But he said he couldn't be bothered with it. "It costs too much, and it makes too much work. Always going around collecting food to feed everyone. . . ." He shook his head in disgust. He had given it to Masimongo when Masimongo married his sister. He could have it back if he wanted, or he could make another, but it was all really too much trouble.

765 534 123 [489] [139] Maipe said nothing, but after a while, when we were moving off, he asked me if I would like to see the sleeping place of a trumpet. He led me along an antelope trail, so low that I had to go almost on hands and knees. It followed the banks of a stream and the mongongo plants grew thickly. After a while the stream descended a slope in small cascades, and the undergrowth cleared. We stood up and saw that water was all around us, rippling over rocks and coming together at the bottom in a sizable pool. Maipe looked around, then walked surely into a patch of undergrowth and called me. I found him at the foot of a tall tree, the base of which was hidden by thick bush. Through the bush ran a vine, looped around the tree about three feet off the ground. Maipe said that any Pygmy seeing that would know that it marked the sleeping place of a molimo trumpet and would keep away, for it did not concern him and the molimo should not be disturbed while sleeping. I asked where the trumpet was, and Maipe pointed up above his head. I could see nothing except the immense branches of the tree spreading out high above,

[824] [784]

3: Turnbull E-5 (1951-1958) 1962 FO4 Pygmies FO4
Mbuti

tall," he said, "but we call him Ebamunyama, because his father killed a buffalo, and he hunts with us in our forest."

We left early in the morning. It would have been earlier if Kenge had not found an agreeable girl to sleep with, who insisted on cooking him an elaborate breakfast. But we finally got away about an hour after sunrise and headed eastward. The ground was much more hilly than in the Epulu area, but the forest itself was much the same: tall and grand, dimly illuminated by the same filtered light. Underfoot the ground was even more clear of vegetation, as for the most part we were well above the streams and rivers. It was more rocky, and we passed a number of caves, where our guide, an elderly Pygmy with a serious face that kept breaking out into wrinkled smiles, told us that we could pass the night if we were delayed, or if his friends had gone on to another camp. I did not much fancy the idea, and on looking inside one grotto I liked it even less; it was damp, and full of rotting leaves where some earlier travelers had made themselves a bed. There was barely room to sit up, and if it rained the water would certainly have drained into the cave.

We passed several trees of a kind I had not seen before, and Kenge said he had seen them only at the extreme northern boundaries of the Epulu district. The roots climbed into the air, gigantic gnarled spirals, almost as thick as a man's body, joining the main trunk which towered above. Our guide told us that the Mabudo called this the "elephant tree," because they always took refuge in one if they were attacked by elephants. He dodged inside one to show us, hiding behind the roots. Even a Mabudo would have been able to stand upright with perfect ease. But the roots were close together, and an elephant could only get its trunk between them, he explained. And then the Mabudo sliced it off with their machettis. He imitated the action, laughing at the ridiculous picture he presented, trying to be the elephant and the Mabudo at one and the same time.

Kenge asked in amazement if the Mabudo actually came so far

4: Putnam E-5 (no date) 1948 FO4 Pygmies FO4
Mbuti

The Forest Environment.

133
137 The Ituri forest is rolling country, so densely covered with trees that the relief of the landscape is invisible except from the air. It is a primary rain forest; that is, in most of the region it rains every day or every other day, averaging about one half of the days, from four to six in the afternoon—some 180 days a year. The annual rainfall is correspondingly great, about one and a half meters. The temperature is about 70° F. at night, and varies during the day from 75° to 80° F., depending upon whether it is sunny or cloudy. During January and February, the "dry" season, there are many overcast days; during the rest of the year it is either actually raining or else sunny, with quick changes. When the rain comes, it comes suddenly. It may be bright during the earlier part of the day, and then in the afternoon cloud up all at once in thunderheads. For a few minutes high winds rage through the trees, which tremble like grass in a breeze. Rotten branches and even huge trees crack and fall, crash-

132

[P. 322-B]

132 ing to the ground. The lightning flashes from the somber sky, and thunder rolls and re-echoes, followed by a pelting downpour. Then in an hour or two it will suddenly stop, sometimes for a brief period of sunshine before the dark of night.

137 The forest varies greatly in regard to underbrush. In some spots there is no undergrowth at all, and nothing but leaf mold between the boles of the trees; in others there is a wild tangle of bushes, reeds, and lianas. The densest thickets are found in small patches of secondary growth, where the Negroes have made clearings and then abandoned them. Most of the forest, however, is virgin growth, and unimpeded except for fallen tree trunks.

136 137 The forest provides game enough for the pygmies, and some to spare for their hosts. Many kinds of wild plants, huge trees, small shrubs, small plants, growing low on the forest floor, bear either edible fruits or medicinal leaves or bark. Many edible fungi are abundant.

133 The forest is also well watered; the

[TEXT CONTINUED ON PAGE 323-A]

[P. 322-C]

224 rows in rapid sequence in the antelope's direction, and probably but one will hit him. The pygmy can do just as well by leaping on the animal barehanded, and either strangle it or kill it with a knife, and he often does this.

224 411 In his quiver the pygmy usually carries two kinds of arrows, the first with iron tips, which he generally uses on the larger, antelope-size, animals, and wooden-tipped ones which are poisoned, and which he uses for monkeys. He rarely shoots a monkey with an iron-tipped arrow, through fear of losing it. Each man makes his own poison as well as his own darts. The [824] plants from which the poison is made are well known, and there is neither ritual nor mystery attached to the proc- [139] ess. The vital plant is a strophanthus; they will mix other plants with it, but they know which one does the trick.

The strophanthus poison is a heart stimulant. Its action is not immediate. The monkey runs along a bit, grows weaker, and urinates. The pygmies watch for this, for the moment of 224 urinating is the fatal one. If the monkey is out on a limb where there are no other branches, he will fall off; if he is within reach of a lateral branch or one rising upward, he will clutch it, and the hunter will be obliged to climb the tree if he wants the monkey. To do this he uses the technique described under pygmy locomotion. Since the monkeys are usually high in the trees and the pygmies are such poor marksmen, they undoubtedly miss more of them than they hit.

Elephant hunting.—Pygmy elephant hunting involves a technique that is wholly different from either of the above two. The pygmy elephant hunter is a specialist; not every pygmy has the courage to face an elephant and kill it, and not every man the skill. Whether or not pygmies ever killed elephants [177] in the early days, the present form of

[P 330-A]

224 mountain of meat and a free lunch for
171 all as long as it remains edible.

222 **Gathering.**—The gathering of fruits, nuts, and slow animals has a minor importance during most of the year, for the bulk of the pygmies' vegetable food derives from the crops of their Negroes. However, after the evening meal, while the men sit about the fires chatting, the women gather firewood and bring in, just before dusk, any mushrooms and slow game that they may encounter.

[221] The dry season, in January and February, is the time of the ripening of certain fruits and seeds. At this time of the year the pygmies easily could live on the fruit borne by the wild forest trees. It is a period of seasonal abundance and feasting. The [137] ibambi, a big luscious fruit that looks like a pineapple, is one of the most important of these fruits. It drops to the ground with a thud, and pygmies and chimpanzees alike will rush up when [825] they hear it strike. The pygmies often tell stories of chimpanzees that get so full of ibambi that they can eat no more, but hide one in a crotch of a tree for future use; a pygmy sees this and steals it, and the chimpanzee gets a grudge against the pygmy and decides to annoy him in the future.

[137] Next to the ibambi fruit in importance is the baselli nut. This is covered by a tough fibrous husk which can be opened only with a machete; hence, the chimpanzees do not rival the pygmies in this case.

Other gathered foods include termites, which come when the first heavy rains begin after the dry period; colonial caterpillars, which have a later season; and honey.

Pygmy Interaction

521
157 **Evening talking time.**—The pygmies seem to be a little less talkative
571
[P.333-B]